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09/881,300	06/13/2001	Rodrick Seely	KLR:djs 3301.038	6773

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EXAMINER

LI, SHI K

ART UNIT	PAPER NUMBER
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2633

DATE MAILED: 04/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/881,300

Applicant(s)

SEELY ET AL.

Examiner

Shi K. Li

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 13 June 2001 and 26 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-73 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-73 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Objections*

1. Claims 8, 23, 38 and 54 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 8 depends on claim 7. Claim 7 recites the limitation "said transmitter and said receiver are free from including a mechanical switching mechanism". Claim 7 excludes all mechanical switching mechanism and in particular a relay. Therefore claim 8 does not further limit claim 7. Similar situation exists for claims 23, 38 and 54.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-3, 11, 16-18, 26, 30-33, 41, 46-49 and 57 are rejected under 35 U.S.C. 102(b) as being anticipated by Bicek (U.S. Patent 4,107,519).

Regarding claims 1, 16, 30-31 and 46-47, Bicek discloses in the FIG. a system for controlling electrical devices (see col. 1, line 12). The FIG. comprises a laser for emitting optical signal, a tank 12 for housing the devices, a receiver 20 for controlling

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relays for turning heater off or on. The optical signal generated by laser 10 passes through port 14 to the receiver.

Regarding claims 2, 17, 32 and 48, the laser 10 is located outside of tank 12.

Regarding claims 3, 18, 33 and 49, the receiver 20 is located inside of tank 12.

Regarding claims 11, 26, 41 and 57, Bicek includes modulator 34 to modulate the optical signal generated by laser 10.

4. Claims 1-5, 10-11, 16-20, 25-26, 30-35, 40-41, 46-51 and 56-57 are rejected under 35 U.S.C. 102(b) as being anticipated by Moseley et al. (U.S. Patent 5,099,193).

Regarding claims 1, 16, 30-31 and 46-47, Moseley et al. discloses in FIG. 11 a system for controlling a lighting load 712. FIG. 11 comprises a transmitter 20, a receiver/controller 710 within an enclosure as shown in FIG. 15, a detector located inside the receiver/controller 710. As illustrated in FIG. 15 and FIG. 17, light generated by transmitter 20 passes through a lens 834 and is received by a detector 840.

Regarding claims 2, 17, 32 and 48, the transmitter 20 is located outside the enclosure.

Regarding claims 3, 18, 33 and 49, the detector 840 is located inside the enclosure.

Regarding claims 4, 19, 34 and 50, Moseley et al. teaches in col. 7, line 34 to use a 9-volt battery for powering the transmitter.

Regarding claims 5, 20, 35 and 51, Moseley et al. teaches in col. 21, lines 33-45 that the lighting device uses the A.C. power available at residence, which is inherently higher than 6 volts.

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Regarding claims 10, 25, 40 and 56, Moseley et al. teaches in col. 7, line 25 to use infrared transmitter.

Regarding claims 11, 26, 41 and 57, Moseley et al. teaches in FIG. 2A a carrier frequency oscillator 46 to generate a carrier signal.

5. Claims 1, 7-8, 10, 16, 22-23, 25, 30-31, 37-38, 40, 46-47, 53-54, 56 and 62-65 rejected under 35 U.S.C. 102(b) as being anticipated by Bryde et al. (U.S. Patent 5,909,087).

Regarding claims 1, 16, 30-31 and 46-47, Bryde et al. discloses a wireless power control system. Bryde et al. discloses in FIG. 11 a transmitter for controlling power of a lighting device. Bryde et al. discloses in FIGs. 9A and 9B enclosure for a receiver and control circuit for providing electrical power to the lighting device. Bryde et al. discloses in FIG. 10 the control circuit with an IR receiver 104. As indicated in FIG. 9B, the optical signal generated by the transmitter passes through the lens 71 from outside of the enclosure to within the enclosure to reach the receiver.

Regarding claims 7-8, 22-23, 37-38 and 53-54, the transmitter and receiver are free from mechanical switching mechanism.

Regarding claims 10, 25, 40 and 56, Bryde et al. teaches to use infrared signal.

Regarding claims 62-65, Bryde et al. teaches in FIG. 10 that the control circuit includes a line (same as hot) conductor, a load conductor connected to lightning device 114. The neutral conductor is connected to the lighting device only.

6. Claims 1, 9, 16, 24, 30-31, 39, 46-47, 55 and 66-73 are rejected under 35 U.S.C. 102(e) as being anticipated by Schweiger et al. (U.S. Patent 6,351,206 B1).

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Regarding claims 1, 16, 30-31 and 46-47, Schweiger et al. discloses in FIG. 1 an ignition lock system. FIG. 1 comprises a transmitter 4, an enclosure for the ignition system (see FIG. 2), a receiver 9 inside the enclosure. As indicated in FIG. 1, the optical signal generated by the transmitter passes from outside the enclosure to within the enclosure.

Regarding claims 9, 24, 39 and 55, it is clear from FIG. 1 that only light from transmitter 4 can reach receiver 9 and key 1 blocks all other light from reaching receiver 9.

Regarding claim 66-73, the transmitter and receiver of FIG. 1 are proximate the enclosure.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 9, 12-14, 16, 24, 27-29, 30-31, 39, 42-44, 46-47, 55 and 58-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Banks (U.S. Patent 5,323,256) in view of Office Notice.

Regarding claims 1, 16, 30-31 and 46-47, Banks discloses in FIG. 1 a system for controlling a remotely located electrical device (servovalve 24). FIG. 1 comprises a transmitter 46 for generating an optical signal of wavelength #1, a receiver 52 for receiving wavelength #1, an optical fiber 18 for carrying the optical signal from transmitter 46 to receiver 52. The difference between Banks and the claimed invention is

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that Banks does not teach an enclosure for servovalve 24 and receiver 52. Office Notice is taken that both the concept and the advantages of enclosing a servovalve and a receiver in an enclosure are well known and expected in the art. It would have been obvious to enclose the servovalve and receiver in an enclosure for protecting them from mechanical hazard and damage.

Regarding claims 9, 24, 39 and 55, Banks uses optical fiber for conveying the signal. Optical fiber prevents receiver from receiving light from a source other than the transmitter.

Regarding claims 12-14, 27-29, 42-44 and 58-60, Banks includes a second receiver 54 for receiving wavelength #2. Receivers 52 and 54 select their respective wavelength and control contacts 68 and 28, respectively.

9. Claims 6, 21, 36 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moseley et al. (U.S. Patent 5,099,193) in view of Crochet et al. (U.S. Patent 4,249,264).

Moseley et al. has been discussed above in regard to claims 1-5, 10-11, 16-20, 25-26, 30-35, 40-41, 46-51 and 56-57. The difference between Moseley et al. and the claimed invention is that Moseley et al. uses 6 volt for the first signal and claimed invention uses 24 volts for the first signal. Crochet et al. teaches in the FIG. and col. 3, lines 54-55 to use a voltage of 24 volts for driving a transmitter D1. The transmitting circuit of Crochet et al. and the transmitting circuit of Moseley et al. provide similar functions and are equivalent. Where the claimed differences involve the substitution of interchangeable or equivalents and the reason for the selection of one equivalent for another was not to solve an existent problem, such substitution has been judicially

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determined to have been obvious. See *In re Ruff*, 118, USPQ 343 (CCPA 1958).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to replace the transmitter of Moseley et al. with the transmitter of Crochet et al. in the controlling system of Moseley et al.

10. Claims 15 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bicek (U.S. Patent 4,107,519) in view of Pitsch et al. (U.S. Patent 6,384,946 B1).

Bicek has been discussed above in regard to claims 1-3, 11, 16-18, 26, 30-33, 41, 46-49 and 57. The difference between Bicek and the claimed invention is that Bicek does not teach a connection between the receiver and the first device without using a wire. However, electrical connection by contact is well known in the art. For example, Pitsch et al. teaches in FIG. 1 to use a plug P1 and jack J1 to connect an IR receiver to an electrical circuit. One of ordinary skill in the art would have been motivated to combine the teaching of Pitsch et al. with the system of Bicek because the arrangement of Pitsch et al. allows easy replacement of the IR receiver in case the receiver is bad or of upgrading the receiver to another kind of transducer. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to connect the receiver with the first device using a plug-jack pair, as taught by Pitsch et al., in the controlling system of Bicek because the arrangement of Pitsch et al. allows easy replacement of the IR receiver.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shi K. Li whose telephone number is 703 305-4341. The examiner can normally be reached on Monday-Friday (8:30 a.m. - 5:00 p.m.).




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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on 703 305-4729. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

skl

  
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